"Occasional invaders" is a term for pests that enter buildings during seasonal changes because they have the opportunity to get in for shelter or wander in accidentally.

Environmental cues, like cooler temperatures and shorter days during autumn or rising temperatures in the spring, get animals like insects and rodents moving - sometimes into the buildings that we occupy. Insects such as Asian lady beetles, boxelder bugs, and cluster flies will swarm, moving in large numbers, in early autumn. Sometimes they find their way into schools, homes and other buildings. Similarly, when temperatures rise in spring and summer, some species of insects seek cool, damp places to escape the heat: earwigs are a common example. When present in small numbers, most of these are little more than a nuisance to humans and do not pose a health or safety threat; however, if there is an infestation in a building, they can trigger allergies or become a sanitation problem.

Integrated Pest Management (IPM) is a way to deal with pests before they become a problem. By using the low risk steps listed on pages 3 and 4, in this guide, most insects and mice can be controlled effectively, for the long-term, at little if any cost.

The term "Occasional Invader" portrays a more threatening image than these animals really deserve. All of the species of occasional invaders discussed here are primarily outside dwellers, and only temporarily enter the building due to harsh weather conditions. They are normally harmless, rather than health or safety problems, and many species actually die within a few days, due to dehydration or lack of food.

Insects are the most common occasional invaders; but, mice and other vertebrates, are also included in the term.

Because they are not dangerous, small numbers of these invaders can be tolerated and easily prevented or, if indoors already, removed. The key to managing any pest problem, is to consider the types of creatures that have been getting indoors and choosing from the preventive control measures in this guide.

The following guide will help explain why a particular animal is present and how best to manage it.
For IPM Controls see pages 3 and 4, “Options for Managing Pests”.

Pest Identification and Control Methods

Asian lady beetles:

Scott Bauer, USDA ARS image 1322044. www.forestry images.com

Their bodies have varied dark spot patterns and colors (dark yellow, orange, red). Their Prothorax (directly behind the head) has an "M" shaped marking. These insects can bite, but carry no diseases. Asian lady beetles are actually beneficial in the garden and to crops: they eat aphids that can spread plant disease. The "oldtime" lady bugs are still around, but Asian lady beetles have no natural predators in this country, so there are many more of them. Sometimes Asian lady beetles will swarm by the thousands, to a building where they can get under loose siding and stay the winter. If injured or under attack, Asian lady beetles can emit an odorous fluid that stains. IPM Controls: 1, 3, 4, 6

Cluster Flies:

Clemson University - USDA image 1435222. www.forestryimages.org

The larvae (maggots) of cluster flies develop inside the bodies of earthworms and mature toward late summer or early autumn. The adult cluster fly is slightly larger than the common housefly. Key markings are the short, golden colored hairs on their thorax (mid-section of the body). Cluster flies can crawl through small gaps in siding, into structures for overwintering. Once inside the house, flies might be found on the interior of windows on warm winter days. IPM Control: 1, 6

Earwigs:

They do not live on humans and are not poisonous. They will pinch to defend themselves or their young. They breed in damp, dark spaces (mulch, wood piles) and eat both plant and animal parts. They are a common food source for birds, snakes and toads. If infesting a drinking water well, bacteria levels could rise and require draining and sterilization. IPM Control 1, 2, 4, 5, 6

Ground beetles:

There are over 1,000 species of ground beetles in the United States. Their sizes typically range from 1-1 ½ inches long. They are dark and shiny in appearance and are sometimes mistaken as cockroaches. They are insect predators so thrive in mulch where other insects can be plentiful. Ground beetles do not swarm and will not infest structures. IPM Control: 1, 4

Millipedes:

Stolz, Gary M./USFWS

Like centipedes, millipedes are not insects: they have 4 legs per body segment (insects have six legs, total). Also like centipedes, millipedes breed outdoors in damp areas. They will migrate in large numbers but usually not into buildings. IPM Control: 1, 5, 6

Centipedes:

Centipedes are technically not an insect - they have two legs per body segment (insects have only six legs, total). Their jaws have poison glands that stun insect prey but are harmless to humans. Centipedes are beneficial to humans because they eat other insects. They can move quickly to catch another insect or run for shelter. They thrive in damp areas like sump pumps and moist soil. They do not infest structures. IPM Control: 1, 4, 5, 6

Pillbugs and Sowbugs:

Their size is about ¾ inches long. Pillbugs roll into small balls when harassed. Sowbugs will not roll into a ball. Both will breed in damp areas, but will not swarm to indoor areas. IPM Control: 1, 4, 5, 6

Springtails ("snowfleas"):
These tiny insects are only 1-2 mm long. They thrive in mold or damp areas outdoors, even under the snow, and can hatch by the thousands.
IPM Control: none necessary

Clover mites:
Clover mites look like tiny dark green or bright red dots and will leave a red stain if they are crushed. They will not bite humans and carry no diseases.
They consume plant juices and only accidentally enter buildings - usually if there are plants close to or growing on the building. IPM Control: 4

Boxelder bugs:
Boxelder trees are the host for this insect. They will over-winter on the south and southeast side of trees under loose bark (or under loosefitting siding of a building). Their numbers vary between years.
IPM Control: 1, 3, 6

Clyde S. Gorsuch , Clemson University image 1435059. www.forestryimages.org

Silverfish:
They will nest in paper and can be without water or food for a long time.
IPM Control: Minimize stored paper and tightly seal it in plastic bags or containers.

Psocids a.k.a. "booklice":
These tiny (1-2 mm) insects eat molds and thrive in dark, damp, undisturbed areas.
IPM Control: 2

Unless otherwise credited, all pictures are credited to Phillip Pellitteri/UWEX

Options for Managing Pests

Integrated Pest Management (IPM) treatments always require that the premises are inspected first, to determine whether building repairs or simple changes in routine can be made to discourage pest entry. The following options can minimize the chance for pest entry or manage those already inside.

1. Exterior proofing - Make sure doors close completely, and there is no loose siding, gaps around utility pipes, or holes where the foundation and frame of the building should meet. Make these points part of the regular preventive maintenance inspection schedule. Repair gaps in the foundation, mend screens, install flashing at joints, tightly affix siding, caulk around light fixtures and other points of attachment to the exterior. Place escusion plates, flashing, or patching materials where utilities pass through walls.

2. Dehydrate/ventilate the space

3. Plant a variety of native species - set up the area with several species of ornamental plants and grasses, so it supports varied insect species. A more natural habitat will hold down the population of any one insect because insects must compete with each other for the available food and shelter.

4. Keep a non-vegetative buffer - of 6-12 inches around the building.

5. Control moisture - Avoid overwatering of mulched areas, fix leaky faucets, do not allow organic material, like leaf piles, to accumulate. Landscape with stone or other materials that will not hold moisture but will still control weeds.

6. Manual removal
a) Hand pick and remove or swat individual insects
b) vacuum large numbers of insects - dispose of the bag so it does not emit odors or the insect parts in it become a food source for other insects in the building.

Consider pesticide use only after other IPM measures fail and there is an infestation in persistantly large numbers inside the building. If pesticides are used, realize that if they reach the pests inside the walls, those pests will die within the walls of the building where their bodies will become a food source for other pests, or they will decompose and may emit an odor. Pesticide use should be the last choice for controlling occasional invader species after the other IPM steps are tried.
See http://www.datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/school_ipm.html for pesticide use laws, guidelines and who to contact for assistance in choosing a pesticide or pest management contractor.

Mice

A mouse can fit through as little as a ¼ inch opening and needs no more than an ounce of food per week to survive. It will drink water if water is available, but can get all it needs from moist food. Unlike insects, mice are curious, excellent climbers, and enjoy a wide range of flavors to please their tiny palates. So, they forage - scavenging crumbs on floors, oils off kitchen surfaces, and goodies from the trash. Mice can chew wood, wiring and insulation and will drop up to 40 fecal pellets a day. Mice can spread bacterium such as salmonella and e. coli by walking through feces and urine then transferring the microbes from their bodies to uncleaned areas.

If one or two mice find their way into your building, especially during autumn or spring, it is likely not a health or safety problem. Wisconsin has many species of outdoor mice that are often grouped under the term "field mouse". "Field mice" do not prefer to live in buildings and their normal food source is outdoors. They may wander in if given an opening. On the other hand, a true infestation, a problem with an abundance of mice residing and breeding within a building, will likely be due to one species: the "house mouse". No matter the species, you will certainly want to keep these animals out of the building.
But, knowing a few differences between species may mean the difference between a safe, cost-effective, successful treatment and a recurring, potentially hazardous rodent infestation in your building. See the Rodent Identification PDF at this address:
http://www.datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/school_resources.html to get details for rodent identification.

IPM Methods for Mice

Here are some IPM measures that work to prevent rodent entry.

Remove Habitat

Mice require shelter, food and water. Do not plant gardens or other vegetation within 6-12 inches of the building's foundation where mice might live and easily wander into an opening in the building. Remove mulch, wood or leaf piles, and keep equipment, supplies and refuse as far from the building as practical. Look for and eliminate places where mice can avoid the weather and predators.

Proofing

Repair and seal access points. A mouse can fit through as little as a dime sized, ¼ inch wide opening. Seal cracks in building foundations and around openings around pipes and vents. Rodents are chewers and can gnaw through an amazing array of materials. Use heavy gauge sheet metal for flashing, durable door sweeps, escusion plates around pipes and concrete filler for foundation cracks.

Sanitation

Store food in durable sealed containers such as plastic or aluminum. Restrict food consumption to specific areas so cleanup can be done easily and immediately after eating. Keep recycle bins, trash cans and bird feeders as far from the building as possible.

Trapping

Once mouse signs are found inside the building, traps should be placed where signs of mice have been found: where feces pellets, food crumbs or gnawing marks are observed. Bait the traps with grains like cereal. Traps can be inexpensive, and can be of the type that snap the animal when it takes the food, or catches the mouse when it enters a live "Ketch-All™" type of trap. Since traps have pinchpoints and can injure small fingers, make sure to place traps where children will not be able to readily reach them.

Pesticides

Consider using pesticides only after the lower risk IPM methods fail to prevent or control a problem. The reasons for this include the fact that pesticides, unless reapplied, will likely not prevent future occasional invader pest problems. Depending on the level of infestation, pesticides can be complicated to use effectively.
For example, some rodents are finicky eaters and will avoid pesticide baits that are placed in an incorrect location, or do not 'smell or look right' to them. When mice do not respond to baiting, even experienced pest management professionals can find it difficult to solve the problem. There are also risks of harming non-target animals that might consume the pesticide bait, though not intended for them.

Pesticide use is regulated by the Wisconsin Department of Agriculture, Trade and Consumer Protection.

For questions about proper, legal pesticide use, contact WDATCP (608-224-4547) or visit our website at http://www.datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/school_ipm.html.

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